

## **Change Coolant Regularly**

Generator manufacturers attend job fairs at the major universities. They hire the best and brightest new engineers, chemists, IT people, and soon to be professionals. Make no mistake. They understand chemistry and metallurgy.

When they build a cooling system for your generator, they are well aware of the factors that cause deterioration.

One of those factors is electrolysis. Molecules are electrically charged. Coolant is an electrolyte. Two different metals immersed in an electrolyte becomes a battery. One metal becomes the cathode and one the anode. Molecules will migrate from one to the other at a measured pace.

When an engine has a copper alloy radiator and an iron engine block with ethylene glycol as an electrolyte the copper will migrate to the iron. When the radiator and its solder become thin enough, the radiator will fail.

The same principle applies to later model generators using different materials in their radiators. The factories plan similar failures with the new materials.

### **Why would they do this?**

Failures create service calls. Service calls generator labor and parts revenue to support the factory's dealers and distributors. A healthy distributor network supports factory sales and warranty service. You are paying for this support.

The more your maintenance staff knows about the equipment you own the less you spend on unnecessary repairs and service.

Ethylene glycol and propylene glycol antifreeze last forever. The buffers needed to slow down the detrimental effects of the coolant deteriorates with time. The longer the coolant remains in an engine the worse it gets.

Many radiator manufactures and some generator manufacturers recommend coolant replacement annually in order to keep the buffers fresh.

When changing coolant use the color recommended by the manufacturer. The buffers in the different color coolants are designed to protect parts the manufacturer put into the machine that are programmed to fail with the other buffers. I'm afraid you are stuck. You do not know what they planned to crap out. It could be freeze plugs, coolant pump, or the radiator itself. You are at their mercy.

Make sure your service provider is aware and uses the correct color.

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